

*Alabama Department
of Public Health
Hospital Mass Casualty
Assessment 2017*

Prepared by

Alabama Department of Public Health's

Center for Emergency Preparedness

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OVERVIEW

The Alabama Department of Public Health (ADPH) Hospital Mass Casualty Assessment is drafted by the Center for Emergency Preparedness (CEP) staff.

The data used in this 2017 report was submitted by Alabama's 116 acute care, psychiatric, rehabilitation, and VA hospitals. The assessment was active from November 1, 2017 – February 8, 2018. The department received a one hundred percent submission rate. The data reported covers the grant period from July 1, 2017 – June 30, 2018. For the questions that would continue through the end of the grant reporting period, hospitals were asked to estimate their progress.

Copies of this report will be distributed on-line to ADPH senior management, the Emergency Preparedness (EP) teams, the Alabama Hospital Association (AlaHa), participating hospitals, and the healthcare coalitions.

The ADPH Center for Emergency Preparedness receives funding from the Department of Health and Human Services, through the Office of the Assistant Secretary for Preparedness and Response (ASPR), to continue to improve and enhance the level of emergency preparedness the state of Alabama has attained over past years.

COMMUNICATION & PUBLIC INFORMATION

Redundant communication systems are a requirement for healthcare systems and health departments. This was put in place by the Healthcare Preparedness Program (HPP) in 2003. This ensures that if one communication system fails, then others can be implemented to maintain communications.

Redundant Communication Systems	# of Hospitals Utilizing System	Percentage (%)
Cell Telephone	112	97%
Regular Telephone	112	97%
LAN (Local Area Network)	80	69%
Amateur Radio	68	59%
HEAR System(Hospital Emergency Administrative Radio)	60	52%
VHF Radio (Very High Frequency)	49	42%
WAN (Wide Area Network)	49	42%
800 MHz Radio	53	47%
UHF Radio (Ultra High Frequency)	50	43%
VoIP(Voice Over Internet Protocol)	42	36%
Satellite Phone	33	28%

Other forms of communication utilized by hospitals included 700 MHz radios at 7%, and AIMS (Alabama Incident Management System), CAREpoint, and two-way radios combined at 10% use rate.

Forms of two-way communication hospitals utilize most often include:

Two –way Communication Systems	# of Hospitals Utilizing system	Percentage (%)
Cell Phone	108	93%
Regular Telephone	112	97%
LAN (Local Area Network)	79	68%
HEAR System(Hospital Emergency Administrative Radio)	62	53%
800 MHz radio	55	47%
WAN (Wide Area Network)	47	41%
VHF Radio (Very High Frequency)	48	41%
UHF Radio (Ultra High Frequency)	50	43%
VoIP (Voice over Internet Network)	41	35%
700 MHz	11	9%

The combined use of Southern Linc, amateur and two-way radios, microwave, and satellite had a 22% utilization rate.

Southern LINC call down	Number of Hospitals
Hospitals participating in the weekly call down	102 (87%)
Hospitals not participating in the weekly call down	14 (12%)

Hospitals not participating in call down:

Those with no Southern LINC radio	8 (7%)
Having no one to monitor the Southern LINC calls	2 (2%)
Hospitals reporting equipment failure	2 (2%)

Tier 2 response partners with which hospitals were able to sustain two-way communications during an event or over the past year.

	Numbers of Hospitals	Percentage (%)
EMA	35	30%
ADPH	35	30%
Police	20	17%
Ambulance Services	12	10%
Other Hospitals	12	10%
EMS	9	7%

Seventy hospitals (60%) reported having an Amateur Radio Station. Sixty-one (53%) of those hospitals reported having one or more persons available to staff the HAM radios during an event or drill. They also listed the contact person.

Amount of time the hospitals spent testing **sustained 2-way communications**

	Numbers of Hospitals	Percentage (%)
0-59 minutes	87	75%
1-2 hours	19	16%
Greater than 2 hours	9	7%

One hundred – sixteen hospitals (100%) reported being familiar with AIMS (Alabama Incident Management System).

PERSONNEL/STAFFING

Capability 15: Volunteer Management

	Numbers of Hospitals	Percentage (%)
# of hospitals that have identified volunteers to augment staffing	57	49%
# of hospitals that have credentialed their volunteers	33	28%
Hospitals with systems to manage identified volunteers	69	59%
Hospitals with volunteers registered through ESAR-VHP Emergency Systems for Advance Registration of Volunteer Health Professionals (AI Responds)	14	12%

Capability 12: Public Health Laboratory Testing

Lab Personnel

	Totals
The number of hospital-based lab personnel (medical and clinical laboratory technologists and technicians) in the facility	2330
The number of hospital-based lab personnel (medical and clinical laboratory technologists and technicians) that are trained in the protocols for referral of clinical samples and associated information to the public labs	885

Capability 8: Medical Countermeasure Dispensing

The estimated number of hospital personnel, hospital based EMS personnel and their family members that would require prophylactic antibiotics and/or antivirals.

	Totals
Prophylactic Antibiotics (hospital personnel)	67,565
Prophylactic Antibiotics (hospital-based EMS personnel)	13,530
Prophylactic Antibiotics (family members of both hospital personnel and hospital-based EMS personnel)	175,786
Antivirals (hospital personnel)	78,905
Antivirals (hospital-based EMS personnel)	12,240
Antivirals (family members of both hospital personnel and hospital-based EMS personnel)	155,968

PHARMACY

	Totals
Hospitals having obtained the estimated number of doses of prophylactic antibiotics needed in a mass casualty event	66 (57%)
The total number of doses of antibiotics your hospital has available for the purpose of providing prophylaxis to hospital personnel, hospital based EMS, and their family members in the first 72 hours of any mass casualty event.	200,123
Hospitals having obtained the estimated number of doses of prophylactic antivirals needed in a mass casualty event	53 (46%)
The total number of doses of antivirals your hospital has available for the purpose of providing prophylaxis to hospital personnel, hospital based EMS, and their family members in the first 72 hours of any mass casualty event.	261,026

Ninety-two hospitals (79%), have a plan in place to disseminate prophylaxis to essential hospital personnel, hospital based personnel and the family members of both.

SURGE CAPACITY

Capability 10: Medical Surge

One hundred- seven hospitals (92%) can report the number of available beds according to Hospital Available Beds for Emergencies and Disasters (HAvBED) definitions, to ADPH or the State EOC within 60 minutes of a request during an exercise or event.

The table below shows the numbers of each of the **staffed specialty beds** reported.

Types of beds	Totals	Types of beds	Totals
ED beds	1,571	Psychiatric beds	1864
Adult ICU beds	1,426	Negative Pressure beds Isolation beds	630
Pediatric ICU beds	91	Rehabilitation beds	699
Medical/Surgical beds- Adult	7818	Operating Room beds	718
Med/Surgical beds- Pediatric	566		
Burn beds	61	Totals	14,629

Ninety-four hospitals (81%) can make 20% of their staffed beds available within 4 hours of a disaster or emergency.

Ventilators

	Totals
The number of ventilators available for service at the hospitals	1344
On a daily basis the average number of patients requiring ventilator assistance	563

DECONTAMINATION

Capability 11: Non-Pharmaceutical Intervention

The number of patients that can be decontaminated within a 3 hour period

	Totals
Ambulatory	2346
Non- ambulatory	965

Eighty-one hospitals (70%) are prepared with redress supplies if decontamination is required.

ISOLATION

Negative Pressure Isolation

	# of Hospitals	Percentage (%)
# of hospitals that can maintain patients in negative pressure isolation in an ED setting.	68	58%
# of hospitals that can maintain patients in negative pressure isolation in a Non- ED setting.	90	77%

TRAINING & EXERCISE

Capability 1: Function 4

One hundred three hospitals (89%) have an education/training director. Ninety-three (80%) have listed the training director's name and contact information.

One hundred-five hospitals (91%) reported having incorporated National Incident Management Systems (NIMS) concepts and principles for handling emergency events.

Listed below is the number of hospital personnel who have completed the following federal NIMS courses during the current grant year (July 1, 2017 – June 30, 2018) or will do so.

	# of employees identified for training	# of employees who have completed training
IS-100	2763	1998
IS-200	2477	1732
IS-300	415	401
IS-400	341	331
IS-700	1107	750
IS-800	739	550

At the time of the survey, seventy-eight hospitals (67%) reported being 100 % compliant on all eleven elements.

The numbers of hospitals not yet compliant, listed by element

Element	# of Hospitals	Element	# of Hospitals
1. Adopt NIMS throughout the healthcare organization including all appropriate departments and business units.	13	7. Promote and integrate, as appropriate, NIMS concepts and principles into all organization-related training & exercises.	24
2. Ensure Federal Preparedness grants and cooperative agreements support NIMS Implementation (in accordance with the eligibility and allowable uses of the awards)	19	8. Promote & ensure that hospital processes, equipment, communication and data facilitate the collection and distribution of consistent and accurate information with local and state partners during an incident or event.	24
3. Revise & update emergency operations plans (EOP's), standard operating procedures (SOP's), standard operating guides (SOG's), to incorporate NIMS and National Response Framework (NRF) components, principles, and policies to include planning, training, response, exercises, equipment,	27	9. Apply common and consistent terminology as promoted in NIMS, including the establishment of plain language communications standards.	28

evaluation and corrective actions.			
4. Participate in interagency mutual aid and/or assistance agreements, to include agreements with public and private sector and nongovernmental organizations.	24	10. Manage all emergency incidents, exercises and preplanned events in accordance with ICS org structures, doctrine, processes, and procedures.	28
5. Implement IS-700: NIMS, An Introduction, ICS-100: Introduction to ICS, and ICS-200: ICS for Single Resources training to appropriate personnel	29	11. Adopt the principle of Public Information, facilitated by the use of the Joint Information System (JIS) and Joint Information Center (JIC) ensuring that Public Information procedures and processes gather, verify coordinate, and disseminate information during an incident or event.	22
6. Implement ICS-800, NRF: An introduction - training to appropriate personnel.	26		

Fifteen hospitals (13%) have requested assistance in completing the eleven elements.

The number of hospitals participating in or having conducted any of the following exercises for grant period July 1, 2017 - June 30, 2018.

	# of Hospitals	Percentage (%)
Statewide Exercise	57	49%
Regional Exercise	91	78%
Real World Exercise	63	54%

Exercises with development of after-action reports

	# of Hospitals	Percentage (%)
# of hospitals that participate in exercise(s) or respond to actual event(s) within 60 days to identify weaknesses in training, planning, and/or response	107	92%
# of hospitals that have developed corrective action/improvement plans based on after-action reports in the past year	98	84%

The table below lists the numbers of exercises hospitals have participated in conducted or will conduct during the current project period of July 1, 2017 – June 30, 2018, which includes hospital personnel, equipment, or their facility.

	Number of exercises	# of participating hospitals	Percentage (%)
Drills	349	100	86%
Tabletops	129	91	78%
Functional exercises	146	72	62%
Full-Scale exercises	97	80	69%

One hundred-eleven hospitals (96%) exercise the Incident Command System component of the EOP during drills and exercises.

PANDEMIC INFLUENZA

Hospitals that have conducted pandemic influenza education

	# of Hospitals	Percentage (%)
General Pandemic Information	106	91%
Personal Preparedness	104	90%
Facility Continuity of Operations Plan (COOP)	90	78%

One hundred -four hospitals (90%) have a surveillance program to monitor staff absenteeism.

Under Pandemic Influenza, does hospital plans address the following pandemic influenza related questions:

	# of Hospitals	Percentage (%)
Plans for employee family support	94	81%
Policies and/or triggers for implementing procedures related to employee absenteeism	104	90%
Plans for respiratory isolation for influenza like illness (ILI) for ED patients	95	82%
Training and guidance for the protection of staff	113	97%
Policies for protection of ED waiting room patients	92	79%

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eighty-eight percent of hospitals (102) have appropriate amounts of PPE to protect staff and volunteers in support of highest risk.

One hundred-ten hospitals (95%) have a plan in place to disseminate PPE to essential hospital personnel.

PPE hospitals need to acquire

	Numbers		Numbers
Suits – Tyvek suits, decon suits, hazmat suits, Level C suits,	5	Respiratory - Respiratory Precaution Stations, Respirators	2
Masks – Protective masks, N-95 masks,	1	Light Protective covering - Gloves, Gowns	3
PAPRs – PAPR’s , Max Air Style 800 Hood systems, PAPR Filters, PAPR batteries	5	Protective eyewear - Goggles and other eye protection	3
PPE –General PPE Supplies,	3		

There are 112 hospitals (97%) that have a system in place to request additional resources if needed during a disaster.

OTHER EQUIPMENT/SUPPLIES

If there is additional funding available, the items that have been requested most often by the hospitals, include decon/redress supplies requested by 19 hospitals, general PPE requested by 9 hospitals and PAPR’s requested by 15 hospitals.

	Numbers		Numbers
PPE – General PPE, PAPR’s, PAPR batteries, chargers, filters, Hazmat suits, Tyvek, suits, High level decon suits, biohazard suits with respirators, Tygon suits, Max Air suits and hood systems, additional hoods, decon boots, gloves, CERT kits, PPE for viral pathogens, decon style cooling vests,	94	Decontamination equipment – Decon /redress supplies, Cover and new roof for portable decon shower, decon tents, equipment, decon trailer, 2 metal decon huts,	22
Miscellaneous Equipment – Generators/emergency power equipment, portable vital signs monitors, wheelchairs, sawhorses, backboards, stretchers, Geiger counters (rad dosimeters), Air pumps, gas masks, new morgue trailer, triage tent, cots for patients, portable cardiac monitors, wastewater equipment, water purification equipment, air compressors, tanks, outdoor lighting, replacement morgue trailer,	34	Communication – Satellite radios, 2-way radios, Southern LINC, Communication equipment, Antennas, Portable VHF radios, Internal radio communication, Digital radios, HAM Radio, Southern LINC booster, I-pad for Emergency preparedness coordinator, Radio equipment, Weather radio	25
Training & Exercises – Hazmat training, More training, Trauma nurse core course training, Decon training, NIMS training, Active shooter training, On site Incident Command training, Facilitation	23	Isolation – Patient isolation bio-containment pods, EMS isolation system, Negative pressure isolation machines, Isolation dressing room, Conversion of a cardiac care isolation room, Funding for	7

for full scale training and drills, Decon education and exercises, More exercises,		negative pressure rooms, Maintenance on isolation filter for iso tent	
Evacuation equipment - Patient evacuation equipment, Stryker chairs, NICU evacuation equipment, Stair chairs, Evac sleds,	4	Medication – Antibiotics/ Antivirals, Prophylaxis meds, Doxycycline, Ciprofloxacin, Tamiflu,	8
Supplies – Disposable scrub sets, Body bags/trauma bags, Disposable vital signs equipment, Thermometers, Stethoscopes, BP cuffs, Disaster supplies, N-95 masks, Flashlights, Decon material,	5	Storage/Buildings- Portable storage buildings, Aluminum carport cover for MMRS trailer, Mobile storage POD for equipment, Storage for MMRS trailer, Storage for current equipment,	6
Security – Improved door locking control access, Closed circuit television, Proximity card reader access to medication rooms, Security cameras,	6	Patient tracking systems – Barcode scanners/armbands, MCI equipment/supplies (go kits), Statewide triage tag tracking system,	1
Miscellaneous – IV fluids, Family preparedness kits,	2		

PLANNING

Eighty-seven hospitals (75%) have dedicated emergency preparedness planners.

For the question of whether a hospital is an active member of their local Healthcare Coalition, one hundred-twelve hospitals (97%) reported being active members of their Healthcare Coalitions. Four hospitals reported that they were not active members.

Hospitals having completed DRAFT plans for the following:

	Number of Hospitals	% of Hospitals
Emergency Operations Plan (EOP)	103	89%
Mass Fatality Management	82	71%
Medical Evacuation	101	87%
Shelter in place	97	84%
Pandemic Influenza	96	83%
Alternative Care Site	94	81%
Mass Vaccination	84	72%
COOP	77	66%
EVD/Highly Infectious Disease	85	73%

Hospitals having completed FINALIZED WRITTEN plans for the following:

	Number of Hospitals	% of Hospitals
Emergency Operations Plan (EOP)	111	96%
Mass Fatality Management	79	68%
Medical Evacuation	103	88%
Shelter in place	101	87%

Pandemic Influenza	97	84%
Alternative Care Site	99	85%
Mass Vaccination	75	65%
COOP	72	62%
EVD/Highly Infectious Disease	81	70%

Plans that have been exercised since July 1, 2017:

	Number of Hospitals	% of Hospitals
Emergency Operations Plan (EOP)	100	86%
Mass Fatality Management	23	20%
Medical Evacuation	27	23%
Shelter in place	62	53%
Pandemic Influenza	31	27%
Alternative Care Site	25	22%
Mass Vaccination	21	18%
COOP	27	23%
EVD/Highly Infectious Disease	22	19%

Ninety-six hospitals (83%) have alternate care sites.

The EMS units in 86 hospitals (74%) use single triage or standard triage tag systems. Thirty – five percent of hospitals (41) report using the START brand of triage tag most often.

Number of hospitals that are planning with the local EMA and coroner for Mass Fatality Management

Yes	No
73 (63%)	43

Hospitals actively engaged in the integration of Emergency Operations Plans (EOP) with key response partners to indicate expected roles in a response.

Yes	No
107 (92%)	7

The number of hospitals that have identified a Point of Contact within the facility to be notified of a significant event in the community that may impact hospital operations:

Yes	No
116 (100%)	0

Hospitals that have protocols to gather, collate, and communicate public health and clinical threat information to key response partners in accordance with NIMS.

Yes	No

107 (92%)	2
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One hundred- eight hospitals (93%) have an Emergency Operations Plan that designates a Public Information Officer (PIO) who coordinates dissemination of public health and clinical threat information with partner agency PIO's and Joint Information Center (JIC).